

As one of the below named inventors, I hereby declare that: My residence and post office address and citizenship are as stated below my name; I believe I am an original, first, and joint inventor of the subject matter which is described and claimed in letters patent number 6,013,591, granted on January 11, 2000 and in U.S. Patent Application Serial No. 10/044,801, entitled NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESES INCORPORATING THEM, AND METHOD FOR THEIR PRODUCTION, filed January 11, 2002 and for which invention we solicit a reissue patent.

ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations §1.56.

CLAIM FOR PRIORITY

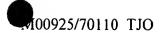
I claim priority under Title 35, U.S.C. §119(c) of U.S. Provisional Application Serial No. 60/035,535, filed January 16, 1997.

STATEMENT OF INOPERATIVENESS OF ORIGINAL PATENT 37 C.F.R. §1.175

I hereby aver that I believe the original patent to be wholly or partly inoperative or invalid by reason of my claiming less than I had a right to claim in the patent. The errors which are recited herein occurred without any deceptive intent.

All errors being corrected in this reissue application up to the time of filing of this declaration arose without any deceptive intent.

The particular insufficiencies in the claims result because they are not as broad as the scope to which I believe I am entitled due to the inclusion of certain limitations in the claims such as a "spherical" crystal. The limitation of "spherical" appears in the two independent claims of the original patent, claims 1 and 9, and all dependent claims that depend therefrom.



POWER OF ATTORNEY

I hereby appoint the following attorneys and agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Robert M. Abrahamsen	40,886	Jason M. Honeyman	31,624	Randy J. Pritzker	35,986
Konstantinos Andrikopoulos	48,915	Robert E. Hunt	39,231	Edward J. Russavage	43,069
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George L. Greenfield	17,756	Elizabeth R. Plumer	36,637	8	,
James M. Hanifin, Jr.	39,213	Michael J. Pomianek	46,190		
Steven J. Henry	27,900	Jeffrey B. Powers	45,021		

Address all telephone calls to Timothy J. Oyer at telephone no. (617) 720-3500. Address all correspondence to

Timothy J. Oyer
Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, MA 02210-2211

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.

Jackie Y. YING

A citizen of the United States

9 Fairlane Terrace

Winchester, MA 01890

Edward S. AHN A citizen of the United States 10 Rogers Street, #901 Cambridge, MA 02142	Date
Atsushi NAKAHIRA	Date

Atsushi NAKAHIRA
A citizen of Japan
65-3-3-407 Kawashima
Gotan-Osacho
Nishikyoku
Kyoto 615
Japan



REISSUK APPLICATION DECLARATION AND POWER OF ATTORNEY BY INVENTORS

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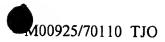
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•	
	Date
ackie Y. YING	

A citizen of the United States 9 Fairlane Terrace Winchester, MA 01890 Edward S. AHN
A citizen of the United States
10 Rogers Street, #901
Cambridge, MA 02142

Date 6/13/02

Atsushi NAKAHIRA
A citizen of Japan
65-3-3-407 Kawashima
Gotan-Osacho
Nishikyoku
Kyoto 615
Japan

Date _____



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-1: V VIVO	Date	

Jackie Y. YING A citizen of the United States 9 Fairlane Terrace Winchester, MA 01890

M00925/70110 TJO

Edward S. AHN
A citizen of the United States
10 Rogers Street, #901
Cambridge, MA 02142

Strushi habatird

Date _ June 10, 2002

Date _____

Atsushi NAKAHIRA A citizen of Japan 65-3-3-407 Kawashima Gotan-Osacho Nishikyoku Kyoto 615

Japan

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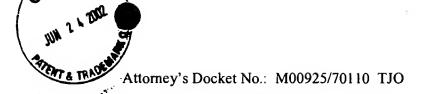


PTO/SB/96 (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

	STATEMENT UNDER 37 CFR 3.73(b)
	cant/Patent Owner:Massachusetts Institute of Technology
	cation No./Patent No.: 6,013,591 Filed/Issue Date: January 11, 2000
	ed: <u>NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESIS INCORPORATING</u> M, AND METHOD FOR THEIR PRODUCTION
Mass (Name	cachusetts Institute of Technology, a University of Assignee) (Type of Assignee, e.g., corporation, partnership, university, government agency, etc.)
states	s that it is:
1.	[X] the assignee of the entire right, title, and interest, or
2.	an assignee of less than the entire right, title and interest. The extent (by, percentage) of its ownership interest is%
	patent application/patent identified above by virtue of either:
A.	[X] An assignment from the inventor(s) of the patent application/patent identified above. The assignment was recorded in the United State Patent and Trademark Office at Reel <u>9518</u> , Frame <u>0963</u> or for which a copy thereof is attached.
OR	
В.	[] A chain of title from the inventor(s), of the patent application/patent identified above, to the current assignee as shown below:
	To: The document was recorded in the United States Patent and Trademark Office at Reel Frame Frame To: The document was recorded in the United States Patent and Trademark Office at Reel
	The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
! [2. From: To:
	The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
	3. From:
	The document was recorded in the United States Patent and Trademark Office at Reel, Frame, or for which a copy thereof is attached.
	[] Additional documents in the chain of title are listed on a supplemental sheet.
[]	Copies of assignments or other documents in the chain of title are attached. [NOTE: A separate copy (i.e., the original assignment document or a true copy of the original document) must be submitted to Assignment Division in accordance with 37 CFR Pare 3, if the assignment is to be recorded in the records of the USPTO. See MPEP 302.08]
The und	dersigned (whose title is supplied below) is authorized to act on behalf of the assignee.
	Date Timothy J. Over Typed or printed name Signature
	Attorney of Record Title



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:

Jackie Y. Ying et al.

Serial No.:

10/044,801

Confirmation No.:

4734

Filed: For:

January 11, 2002

NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESIS

INCORPORATING THEM, AND METHOD FOR THEIR PRODUCTION

ASSENT OF ASSIGNEES TO REISSUE AND OFFER TO SURRENDER ORIGINAL LETTERS PATENT

The assignees of the entire interest in Letters Patent for the invention of NANOCRYSTALLINE APATITES AND COMPOSITES, PROSTHESIS INCORPORATING THEM, AND METHOD FOR THEIR PRODUCTION, U.S. Patent No. 6,013,591, hereby offer to surrender the original letters patent. Furthermore, the assignees of the entire interest in Letters Patent No. 6,013,591 hereby assent to reissue of the patent.

Massachusetts Institute of Technology, certify that it is the assignee of the entire right, title and interest in the patent application identified above by virtue of either:

A. [X] An assignment from the inventor(s) of the patent application identified above, a copy thereof is attached. It is noted that this assignment was originally recorded on October 13, 1998, Reel/Frame 9518/0963.

OR

В. []	A chain of title from the inventor(s) of the patent application identified above, to the current assignee as shown below:
1.	From: To:
	The document was recorded in the Patent and Trademark Office at
	Reel, Frame, or for which a copy thereof is attached.
2.	From: To:
	The document was recorded in the Patent and Trademark Office at
	Reel, Frame, or for which a copy thereof is attached.
3.	From: To:
	The document was recorded in the Patent and Trademark Office at
	Reel, Frame , or for which a copy thereof is attached.
[] Addi	tional documents in the chain of title are on a supplemental sheet.
[X] Coni	es of assignments or other documents in the chain of title are attached

The undersigned has reviewed all of the documents in the chain of title of the patent application identified above and, to the best of the undersigned's knowledge and belief, title is in the assignee identified above.

For submissions on behalf of an organization (e.g., corporation, partnership, university or, government agency, etc.), the undersigned (whose title is supplied below) is empowered to act on behalf of the organization.

Respectfully submitted,

Timothy J. Oyer, Reg. No. 36,628

Attorney of Record

WOLF, GREENFIELD & SACKS, P.C.

600 Atlantic Avenue

Boston, Massachusetts 02210

Tel. (617) 720-3500 Fax (617) 720-2441

Docket No.: M00925/70110 TJO

Date: June 18, 2002

ASSIGNMENT

In consideration of One Dollar (\$1.00) and other good and valuable consideration, the receipt of which is hereby acknowledged, we the undersigned Jackie Y. Ying, 9 Fairlane Terrace, Winchester, Massachusetts 01890, Edward S. Ahn, 10 Rogers St Apt. 901, Cambridge, MA 02142 , and Atsushi Nakahira, 65-3-3-407 Kawashima Gotan-osacho, Nishikyoku, Kyoto 615, Japan hereby sell, assign and transfer to

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, a Massachusetts corporation having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139 and its successors, assigns and legal representatives, all hereinafter referred to as the Assignees, the entire right, title and interest for the United States and all foreign countries, in and to any and all inventions which are disclosed in the application for United States Letters Patent filed in the United States Patent and Trademark Office on January 16, 1998 under serial no. 09/007,930 and entitled Nanocrystalline Apatites and Composites, Prostheses Incorporating Them, and Method for Their Production said application and all divisional, continuing, substitute, renewal, reissue and all other applications for Letters Patent which have been or shall be filed in the United States and all foreign countries on any of said inventions; and in and to all original and reissued patents which have been or shall be issued in the United States and all foreign countries on said inventions including the right to apply for patent rights in each foreign country and all rights to priority.

We agree that said Assignee may apply for and receive Letters Patent for said inventions in their own name; and when requested, without charge to but at the expense of said Assignee, we agree to carry out in good faith the intent and purpose of this assignment, by executing all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said inventions, by executing all rightful oaths, assignments, powers of attorney and other papers, by communicating to said Assignee all facts known to us relating to said inventions and the history thereof, and generally by doing everything possible which said Assignee shall consider desirable for aiding in securing and maintaining proper patent protection for said inventions and for vesting title to said inventions and all applications for patents and all patents on said inventions, in said Assignee.

We hereby request the Honorable Commissioner of Patents and Trademarks to issue said Letters Patent to said Assignee.

We covenant with said Assignee that no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed has been made

9/9/98 Date	Jal Jelly	
STATE OF Middle Sex : COUNTY OF MASSOC huse #8 2	Jackie Y. Ying	
Subscribed and sworn to before me this	9th day of September, 1998.	
SEAL	Denise M. Lynch	
	My	ise M. Lynch Comm. Exp. /27/2000
9/9/98 Date	Edward S. Ahn	
STATE OF Middlesex SECOUNTY OF Massachusetts 2:		
Subscribed and sworn to before me this	9th day of September, 1998.	
SEAL	Notary Public Day	
	Man Garage My	ise M. Lynch Comm. Exp. /27/2000
Date	Atsushi Nakahira	
STATE OF :		
Subscribed and sworn to before me this	day of, 1998.	
SEAL		•
	Notary Public	
	My Commission Expires:	

- 2 -

to others by us and that full right to convey the same as herein expressed is

possessed by us.

198907.1

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Date	Jackie Y. Ying
STATE OF:	
COUNTY OF	*
	me this day of, 1998.
SEAL	
	Notary Public
	My Commission Expires:
-	
Date	Edward S. Ahn
STATE OF:	
COUNTY OF	·
Subscribed and sworn to before m	e this day of, 1998.
	, 1998.
SEAL	
•	Notary Public
	My Commission Expires:
90 1 1	
98 Ang , 26	Starli hebahira
	Atsushi Nakahira
COUNTY OF:	
subscribed and sworn to before me	this day of
EAL STATE OF THE S	京都工芸繊維大学工芸学部長里深信行
	Notary Public
	My Commission Expires:
這高川高	
	<u>:</u>

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